

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	92	(LCD or "liquid crystal display") same "chiral smectic phase"	US-PGPUB; USPAT	OR	OFF	2007/07/06 14:00
S2	1	"5214523".pn. and (film or orientation)	US-PGPUB; USPAT	OR	OFF	2005/11/28 11:22
S3	1	"5214523".pn. and (film or orientation or alignment)	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:19
S4	0	"chiral smectic phase" and capacitor. clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:20
S5	0	"chiral smectic phase" and capacitor	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:20
S6	0	"chiral smectic phase" and capacitor. clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:20
S7	8	"chiral smectic phase"	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:22
S8	0	"chiral smectic" and capacitor.clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 16:22
S9	3	"chiral smectic phase" and capacitor. clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 17:19
S10	17	"chiral smectic" and capacitor.clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 17:19
S11	1	"20040212632".pn.	US-PGPUB; USPAT	OR	OFF	2005/11/29 15:38
S12	1	"4976515".pn.	US-PGPUB; USPAT	OR	OFF	2007/02/02 13:21
S13	199	"auxiliary capacitor" and 345/57-100. ccls.	US-PGPUB; USPAT	OR	OFF	2006/07/10 09:22
S14	0	"auxiliary capacitor" and 345/57-100. ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/03/19 15:16
S15	0	"auxiliary capacitor" and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:47
S16	0	"auxiliary capacitor" and chiral and smectic	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:47
S17	7	"auxiliary capacitor" and chiral	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:50
S18	2	"thresholdless" and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:54
S19	86	"thresholdless" and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:54
S20	7	"thresholdless" same "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:02
S21	1	"5214523".pn.	US-PGPUB; USPAT	OR	OFF	2006/07/09 19:57

## EAST Search History

S22	0	"thresholdless" same (("chiral smectic" or SmC) adj phase)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:03
S23	799	((("chiral smectic" or SmC) adj phase)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:03
S24	745	((("chiral smectic" or SmC) adj phase) and (ferroelectric or antiferroelectric)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:04
S25	1358	((("chiral smectic" or SmC) adj2 phase) and (ferroelectric or antiferroelectric)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:05
S26	745	((("chiral smectic" or SmC) adj phase) and (ferroelectric or antiferroelectric)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:05
S27	494	((("chiral smectic" or SmC) adj phase) same (ferroelectric or antiferroelectric)	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:05
S28	446	((("chiral smectic" or SmC) adj phase) same (ferroelectric or antiferroelectric) same "liquid crystal"	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:06
S29	52	((("chiral smectic" or SmC) adj phase) same (ferroelectric or antiferroelectric) same "liquid crystal" same threshold\$4	US-PGPUB; USPAT	OR	OFF	2006/07/09 20:11
S30	406	"ferroelectric liquid crystal" same "chiral smectic phase"	US-PGPUB; USPAT	OR	ON	2006/07/09 20:12
S31	277	"ferroelectric liquid crystal" with "chiral smectic phase"	US-PGPUB; USPAT	OR	ON	2006/07/09 20:12
S32	4	"ferroelectric liquid crystal" with "chiral smectic phase" with threshold\$4	US-PGPUB; USPAT	OR	ON	2007/08/30 16:40
S33	277	"ferroelectric liquid crystal" with "chiral smectic phase"	US-PGPUB; USPAT	OR	ON	2006/07/09 20:41
S34	1079	"chiral smectic liquid crystal"	US-PGPUB; USPAT	OR	ON	2006/07/09 20:42
S35	60	"chiral smectic liquid crystal".ti.	US-PGPUB; USPAT	OR	ON	2006/07/09 20:42
S36	15	"auxiliary capacitor" and 345/57-100. ccls. and ferroelectric	US-PGPUB; USPAT	OR	OFF	2006/07/10 10:18
S37	1	"5214523".pn.	US-PGPUB; USPAT	OR	OFF	2006/07/10 10:18
S38	29	"V shaped electrooptical"	US-PGPUB; USPAT	OR	OFF	2007/02/02 17:16
S39	0	09/716885	US-PGPUB; USPAT	OR	OFF	2007/02/02 15:44
S40	14	"4976515".uref.	US-PGPUB; USPAT	OR	OFF	2007/02/02 16:19
S41	0	S40 and S38	US-PGPUB; USPAT	OR	OFF	2007/02/02 15:44
S42	1	"5,594,569".pn.	US-PGPUB; USPAT	OR	OFF	2007/02/02 16:38

## EAST Search History

S43	310	"thresholdless antiferroelectric"	US-PGPUB; USPAT	OR	OFF	2007/02/02 16:39
S44	185	"thresholdless antiferroelectric" and transmittance	US-PGPUB; USPAT	OR	OFF	2007/02/02 16:40
S45	170	"thresholdless antiferroelectric" and transmittance and (gradation or gray)	US-PGPUB; USPAT	OR	OFF	2007/02/02 17:12
S46	10	"thresholdless antiferroelectric" and transmittance and (gradation or gray). ab.	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:29
S47	5	"thresholdless antiferroelectric" and transmittance and (gradation or gray) and (reset with black)	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:37
S48	5	"V shaped electrooptical" and reset	US-PGPUB; USPAT	OR	OFF	2007/02/02 18:05
S49	53	345/89.ccls. and 345/97.ccls.	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:36
S50	1	"6459416".pn.	US-PGPUB; USPAT	OR	OFF	2007/02/05 15:15
S51	95	(LCD or "liquid crystal display") same "chiral smectic phase"	US-PGPUB; USPAT	OR	OFF	2007/02/05 17:25
S52	39	(gray or gradation) and ((LCD or "liquid crystal display") same "chiral smectic phase" )	US-PGPUB; USPAT	OR	OFF	2007/02/05 17:26
S53	26	("20020109659" "4776676" "4840462" "4976515" "5214523" "5349367" "5594569" "5598284" "5615027" "5617229" "5643826" "5796380" "5847799" "5877738" "5923962" "5953002" "6046790" "6057824" "6069604" "6122034" "6139927" "6292183" "6323850" "6339416" "6392624" "6545656").PN.	US-PGPUB; USPAT	OR	OFF	2007/03/19 12:09
S54	0	"auxiliary capacitor" and 345/57-100.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/03/19 15:16
S55	345	345/57-100.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/07/06 16:02
S56	175	345/97.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:30
S57	0	"auxiliary capacitor" and 345/97.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/03/19 15:16
S58	4	"auxiliary capacitor" and 345/97.ccls.	US-PGPUB; USPAT	OR	OFF	2007/03/19 15:16
S59	44	((RUMO) near2 (SATAKE)).INV.	US-PGPUB; USPAT	OR	ON	2007/03/19 15:26
S60	1	"6069600".pn. and (spontaneous or polarization or orientation)	US-PGPUB; USPAT	OR	OFF	2007/07/06 14:04

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S61	1	"5214523".pn. and (spontaneous or polarization or orientation)	US-PGPUB; USPAT	OR	OFF	2007/07/06 14:04
S62	122	345/97.ccls. and "spontaneous polarization"	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:11
S63	818	"nC/cm.sup.2"	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:26
S64	32	345/97.ccls. and ("spontaneous polarization" with "nC/cm.sup.2")	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:27
S65	72	345/55-100.ccls. and ("spontaneous polarization" with "nC/cm.sup.2")	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:27
S66	1	345/55-100.ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "40" )	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:29
S67	9	345/55-100.ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" )	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:36
S68	12	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" )	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:39
S69	0	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" ) and (orientation with thickness with nm)	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:51
S70	0	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" ) and (orientation with nm)	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:51
S71	3	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" ) and (orientation )	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:57
S72	3	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "40" ) and (orientation )	US-PGPUB; USPAT	OR	OFF	2007/07/06 15:59
S73	45	((RUMO) near2 (SATAKE)).INV.	US-PGPUB; USPAT	OR	ON	2007/07/06 15:58
S74	0	("spontaneous polarization" with "nC/cm.sup.2" ).clm. and (orientation ).clm. and S73	US-PGPUB; USPAT	OR	OFF	2007/07/06 16:00
S75	0	("spontaneous polarization" with "nC/cm.sup.2" ).clm. and S73	US-PGPUB; USPAT	OR	OFF	2007/07/06 16:00
S76	11	"black level" and S73	US-PGPUB; USPAT	OR	OFF	2007/07/06 16:00
S77	345	345/57-100.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/07/06 16:02

## EAST Search History

S78	345	345/55-100.ccls. and "chiral smectic"	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:28
S79	384	345/55-100.ccls. and "chiral smectic"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/07/06 16:02
S80	144	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/07/06 16:03
S81	71	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization" and orientation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/08/30 16:19
S82	36	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization" and orientation and "nC/cm.sup.2"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/07/06 16:04
S83	6	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization" and orientation and "nC/cm.sup.2" and (nm or angstroms)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/08/30 16:28
S84	47	((RUMO) near2 (SATAKE)).INV.	US-PGPUB; USPAT	OR	ON	2007/08/30 16:10
S85	7	("20010022497" "20010023661" "200 20016031" "20020075422" "20020105 688" "6413548" "6830494").PN.	US-PGPUB; USPAT	OR	ON	2007/08/30 16:10
S86	146	345/97.ccls. and "spontaneous polarization"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 16:11
S87	71	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization" and orientation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/08/30 16:19
S88	384	345/55-100.ccls. and "chiral smectic"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 16:28
S89	6	345/55-100.ccls. and "chiral smectic" and "spontaneous polarization" and orientation and "nC/cm.sup.2" and (nm or angstroms)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/08/30 16:28

## EAST Search History

S90	12	("345"/\$ or "349"/\$).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" )	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 16:29
S91	13	"thresholdless antiferroelectric" and transmittance and (gradation or gray). ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 16:29
S92	201	345/97.ccls. and "chiral smectic"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 16:30
S93	53	345/89.ccls. and 345/97.ccls.	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:36
S94	5	"thresholdless antiferroelectric" and transmittance and (gradation or gray) and (reset with black)	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:37
S96	10	("345"/\$ ).ccls. and ("spontaneous polarization" with "nC/cm.sup.2" with "150" )	US-PGPUB; USPAT	OR	OFF	2007/08/30 16:40
S97	7	"ferroelectric liquid crystal" with "chiral smectic phase" with threshold\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 16:40